United Nations A/62/323

General Assembly

Distr.: General
7 September 2007

Original: English

**Sixty-second session**
Item 73 (a) of the provisional agenda*
**Strengthening of the coordination of humanitarian and disaster relief assistance of the United Nations, including special economic assistance: strengthening of the coordination of emergency humanitarian assistance of the United Nations**

# International cooperation on humanitarian assistance in the field of natural disasters, from relief to development

## Report of the Secretary-General

*Summary*

The present report has been prepared pursuant to General Assembly resolution 61/131, in which the Assembly requested the Secretary-General to continue to improve international preparedness, response and mitigation efforts in relation to disasters, and to report thereon to the Assembly at its sixty-second session. The report highlights significant trends and their humanitarian implications. It also identifies key challenges faced by the international community in improving its ability to address disasters and in strengthening the capacity of disaster-prone countries in disaster management.

* A/62/150.

07-49936 (E) 041007

# I. Introduction

1. The present report has been prepared in response to General Assembly resolution 61/131. It highlights emerging trends, their implications for humanitarian action and the key challenges that need to be addressed in that respect. It concludes with a series of recommendations.

## A. Trends and implications[1]

2. In 2006, 427 disasters associated with natural hazards affected approximately 143 million people and resulted in more than 23,000 deaths. Although the number of victims (persons killed and affected) decreased from 160 million in 2005 to 143 million in 2006, the frequency of disasters remained at a level similar to the 433 disasters recorded for 2005, well above the annual average of 393 for the period 2000-2004.

3. The 2006 figures conform to a trend of increasing numbers of natural hazard events. According to the Centre for Research on the Epidemiology of Disasters, from 1987 to 1997 the number of disasters varied annually between 200 and 250. Between 2000-2006, the annual average of disasters has doubled to more than 400. The rise in the total number of disasters may be attributed, in part, to improved reporting. Other factors include the effects of global warming, as outlined in the recent fourth assessment report of the Intergovernmental Panel on Climate Change, and increased concentrations of people in unsafe and hazard-prone areas.

4. The number of climate-related, or hydro-meteorological hazard events, such as floods, hurricanes and droughts, has increased dramatically over the last 20 years, both in absolute terms and in comparison with the number of geological disasters (for example volcanic eruptions, earthquakes and tsunamis). From 1987 to 1998, the average number of climate-related disasters was 195. From 2000 to 2006, the average was 365, representing an increase of 87 per cent. Comparable figures for the same time period for geological disasters reflect a rise from 28 to 38, which represents an increase of 36 per cent.

5. The trend of increased volatility and extremes in climate-related events in 2006 was clearly demonstrated in Africa. The five countries worst hit by disasters in 2006 in per capita terms were all in Africa. Southern Africa suffered a combination of cyclones, flooding and drought, the greater Horn of Africa was subjected to drought and floods, while drought was widespread in the Sahel. The total number of people affected by drought increased from 30 million in 2005 to 40 million in 2006. Although approximately 14 per cent of the world's population lives in Africa, its inhabitants accounted for 50 per cent of the total drought victims in 2006.

6. Overall, Asia continued to be the continent worst affected by disasters in 2006, in terms of frequency (44 per cent of all recorded disasters), fatalities (70 per cent of the total disaster-related mortality), total numbers of people affected (more than 119

[1] Data in the introduction are drawn from the Office of the United States Foreign Disaster Assistance/Centre for Research on the Epidemiology of Disasters International Disaster Database, Université Catholique de Louvain, Brussels (http://www.em-dat.net); for methodological reasons they cover the calendar year 2006. Data in subsequent sections refer to the reporting period: 1 June 2006-31 May 2007.

million) and economic losses. However, the effects of more extreme climate patterns were felt in all regions. In terms of excess deaths associated with extremes in both summer and winter temperatures, four countries in Europe ranked among the top 10 in 2006.

7. Floods and related disasters were the most frequent type of hazard event in 2006 (with 254 reported) accounting for more than 59 per cent of all recorded disasters. Floods, windstorms and associated disasters had the highest human impact, accounting for 69 per cent of the recorded 143 million victims in 2006.

8. The cumulative economic impact of disasters associated with natural hazards has been recognized as a key factor challenging the achievement of the Millennium Development Goals. Although the reported economic damage caused by disasters in 2006 was comparatively low at $19 billion, the annual average between 1987 and 2006 was $50 billion for hydro-meteorological disasters and just under $20 billion for geological disasters. That estimate does not factor in the economic and social costs of setbacks to development efforts, including an aggravation of the poverty situation in countries hard-hit by disasters. In developing countries, rebuilding in the wake of major disasters can consume a large proportion of national budgets and significantly slow down growth. External support for recovery is often inadequate, as exemplified by the experience of the Maldives, where, according to government authorities, losses after the 2004 tsunami accounted for more than 62 per cent of total gross domestic product (GDP). The Government requested more than $1.5 billion in external aid to help with rebuilding, but only a fraction of this was received.

## B. Evolving nature of risk patterns

9. Risk patterns are changing, with implications for exposed and vulnerable communities, particularly, though not exclusively, in low-income settings. Evolving risk patterns are not adequately understood in terms of their potential humanitarian implications. However, it is apparent that additional or more dangerous hazards, coupled with growing vulnerability, increase the threat level faced by high-risk communities. Experience also shows that communities faced with a multiplicity of threats, or recurrent disasters, are in danger of depleting their assets and eroding traditional coping mechanisms. In addition, threats have a tendency to combine and compound in a manner that exacerbates their overall impact. Low-income communities affected by HIV are, for example, at increased risk when confronted with sudden-onset or slow-impact disasters.

10. Changes in disaster risk are driven by global as well as local factors. In addition to climate change, environmental degradation and increased population pressure, other factors underpinning evolving risk patterns include the growth of mega-cities; the rapidly increasing risk of epidemics and contagious diseases, including HIV and the prevalence of other diseases; and persistent poverty. The level of investment, both national and international, in the reduction of risk also has a significant impact on vulnerability.

11. The ramifications of unplanned urbanization need to be addressed in a systematic fashion in hazard-prone areas. According to the United Nations, the world's urban population will exceed the rural population in 2007 for the first time in human history. Almost all of this urban expansion is occurring in developing

countries. A high proportion of urbanization occurs in an unplanned and unregulated manner and is largely driven by poverty. That explains partly the high co-relation between unplanned urbanization and growing risk levels, as many of the urban poor occupy steep slopes or low-lying, flood-prone areas. Approximately 1 billion people now live in slum settlements that lack basic services and infrastructure and are ill prepared to withstand the shocks of natural hazard events. In addition to the number of major urban centres located in high seismic risk areas, many of the world's largest cities are increasingly at risk of coastal flooding.

12. The number of people living with HIV continues to grow, as does the number of deaths due to AIDS. In 2006, a total of 39.5 million people worldwide were living with HIV, 2.6 million more than in 2004. The convergence of extremely high HIV rates in sub-Saharan Africa, the epicentre of the HIV pandemic, and disasters, particularly drought, is having a direct impact on household coping mechanisms and food security. The pandemic shows little sign of abating, particularly in the hardest-hit countries in southern Africa, where infection rates of 40 per cent in pregnant women are reported.

13. Transboundary crop pests and highly pathogenic livestock diseases, such as avian influenza or foot-and-mouth disease, represent major and emerging global threats owing to expanded travel, trade and distribution of agricultural commodities. The concentration of production systems may facilitate contamination when pests and pathogens enter those systems, and more complex food supply chains increase risk pathways to agriculture and to the health of crops, animals and humans. Although regulatory bodies have been developed to address such risks, most developing countries lack the capacity to meet international standards effectively.

14. Poverty, including its impact on households and communities, is closely associated with risk levels and related disasters, although many low-income countries have made strides in developing effective disaster-management systems and capabilities. A recent World Bank-funded study, which examined the famine in Ethiopia in the late 1990s and Hurricane Mitch in 1998, found that the poorest members of society are most acutely affected by disasters and for a longer period than higher-income groups. Notwithstanding urbanization and the related disaster risks outlined above, the majority of the poor and the malnourished continue to live in rural areas and depend on agriculture for their survival.

## C. Changing risk patterns: implications for disaster preparedness

15. The implications of changing risk patterns, including increased vulnerability, present significant challenges and underline the importance of improved risk management, including increased investment in disaster preparedness. Strengthening national preparedness systems is particularly important given the central role of front-line communities in responding to disasters.

16. National authorities bear the primary responsibility and much of the burden for addressing disasters; they are often the first to respond whatever the scale of the disaster, including but not limited to those that generate international attention. Most disasters associated with natural hazards do not make international headlines and are addressed by local communities and authorities. According to the International Federation of Red Cross and Red Crescent Societies, 80 per cent of disasters are managed at the national level.

17. Investment in disaster preparedness, particularly in the context of a comprehensive risk-reduction programme, has shown that it can save lives and safeguard livelihoods. According to the Centre for Research on the Epidemiology of Disasters, although the frequency of disasters is increasing, the number of victims has remained stable over the last 20 years at approximately 254 million annually.

18. During the reporting period, improved preparedness and a well-coordinated response have shown their value. According to the Federation, the impact of flooding in Mozambique in 2006 was significantly less than comparable events in previous years, thanks partly to improved community preparedness and the introduction of a cyclone warning system set up by the Government's National Meteorology Institute. According to government sources, more than 700 people died in the 2001 floods; in 2007, that figure was less than 100. Similarly, pre-emptive and timely responses to the three typhoons that struck Viet Nam in 2006 were made possible by better assessment of vulnerabilities in-country and improved local-level evacuation and national level coordination systems.

19. Based on available data from the Financial Tracking Service, it appears that, currently, less than 5 per cent of global humanitarian funding is allocated for disaster relief. Given the changing nature of risk, demands for funding for both targeted preparedness and response are likely to increase. It is critical that additional resources for preparedness be mobilized. Significant challenges lie ahead to equip communities, Governments and humanitarian actors with the resources to cope with the humanitarian impact of changing risk patterns and the increasingly complex range of factors that compound the impact of disasters.

# II. Year in review 1 June 2006 – 31 May 2007

20. The pattern of disasters during the reporting period corresponds to the above trends, in that climate-related events dominated the year. However, the events of the past year also demonstrate that investment in preparedness, particularly at the national and regional levels, requires greater commitment and support from the international community and from Governments.

## A. Climate-related hazard events

### Africa

21. During the reporting period a moderate El Niño phenomenon coupled with a warming of the western Indian Ocean resulted in cycles of drought and flooding in many regions of Africa.

22. In the Horn of Africa, excessive rains and severe flooding in September 2006 affected many parts of Ethiopia, Kenya and Somalia. It is estimated that between 1.5 and 1.8 million people were affected, including some 650,000 people who were displaced between October and December 2006 alone. Although relief efforts were hampered by poor road access, United Nations response teams in those three countries initiated responses in all affected areas covering the needs in health and nutrition, water and sanitation, livestock health, food and infrastructure.

23. The drought that followed has required international efforts to provide food and support for livelihoods to more than 10 million people. In Somalia alone, the United Nations has provided more than $60 million in food in 2007, despite high levels of insecurity and difficulties in reaching the affected populations. The original 2007 Somalia Consolidated Appeal Process was revised upwards to $262,354,615 to include programmes that supported livelihood recovery and strengthened coping mechanisms for river communities.

24. Cycles of drought and flooding have also affected many areas of the Sahel region and Southern Africa. In August and September of 2006, Burkina Faso and the Niger suffered from heavy rains that affected more than 22,000 people, requiring international humanitarian assistance. For example, in both countries the United Nations country team together with the Governments provided food, cooking oil, tents, blankets, mosquito nets, kitchen supplies and school kits to affected populations.

25. Cycles of flooding in Southern Africa during the reporting period affected more than 1 million people and killed hundreds. Madagascar and Mozambique were the worst affected owing to five successive cyclones that hit between December 2006 and March 2007. The last two cyclones alone affected an estimated 190,000 people and killed 150.

26. Despite improved disaster emergency preparedness and response capacity in both countries, the magnitude of this year's early rains stretched the Government's capacity, and a total $14.7 million was requested through the Central Emergency Response Fund and $57 million through flash appeals in support of government and international relief efforts. National and international relief organizations also focused on the distribution of food and non-food items, such as shelter materials and basic recovery items, and the rehabilitation of schools damaged by the cyclones. Since the cyclones also had an impact on crops, increasing the likelihood of food insecurity in the coming months, the United Nations initiated support to agricultural activities to avoid disruption of the coming crop season.

27. In southern Africa, droughts contributed to poor harvests from the 2006-2007 farming season, leading to food insecurity in several areas. The World Food Programme (WFP) and Food and Agriculture Organization of the United Nations (FAO) Crop and Food Supply Assessment Missions reported that approximately 800,000 people would require food assistance in Swaziland and Lesotho in 2007. The Mission to Zimbabwe reported that up to 4.1 million people are expected to face food shortages — populations that are already struggling to cope with other crises such as hyperinflation, high HIV prevalence and a significant deterioration in public services. To date, $120 million in humanitarian funding has been pledged through the consolidated appeal for Zimbabwe; inter-agency efforts to provide food rations as well as initiatives to improve food and nutrition security are ongoing.

**Asia**

28. Heavy monsoon rains throughout the summer of 2007 caused widespread flooding across Asia. In Bangladesh, China, the Democratic People's Republic of Korea, India, Myanmar, Nepal and Viet Nam the floods affected close to 50 million people in 50 provinces across those countries; damaged or destroyed more than 2 million houses; and damaged more than 6 million hectares of crops.

29. During the reporting period, major floods in Indonesia in February claimed 79 lives and damaged more than 145,000 houses, 500 schools and hundreds of other public facilities. For several days, Jakarta was almost paralysed as floods covered nearly 70 per cent of the city, with water levels reaching up to two metres in some neighbourhoods. Almost 600,000 people were directly affected and had to relocate temporarily to alternative shelters.

30. The Philippines was hit by three typhoons in the last quarter of 2006, triggering landslides and floods that affected close to 8 million people and caused almost 2,500 deaths. Typhoon Reming (also called Durian) was the most destructive, destroying over 180,000 houses.

31. In Afghanistan, heavy rains, aggravated by rapidly melting winter snows, resulted in destructive flooding and avalanches in March 2007, killing some 83 people and damaging hundreds of homes, affecting seven provinces in the country's south and west. Floods also hit the capital, Kabul, cutting off major supply routes and slowing relief efforts. In addition to the government response, United Nations operational agencies supplied food, family kits, blankets, floor mats, plastic sheets, winter clothes, water purification tablets, jerry cans and chlorine powder. The Vice-President of Afghanistan and the National Emergency Response Commission, supported by provincial disaster management committees in the affected areas, coordinated the response with logistical support from the International Security Assistance Force in extremely difficult situations to transport relief supplies to isolated regions. The National Disaster Management Authority of Afghanistan has improved its ability to utilize Government assets and coordinate the response that was then supplemented by United Nations entities and non-governmental organizations. As a result, relief efforts reached an estimated 20,000 people.

**South America**

32. During the first months of 2007, Bolivia was hit by severe floods, which affected more than 350,000 people, in eight out of nine departments in the country. Following a request for international assistance the United Nations launched a flash appeal for $12 million to support government relief efforts, of which $2 million was provided through the Central Emergency Response Fund.

## B. Geological hazard events

33. A strong earthquake measuring 5.8 on the Richter scale struck West Sumatra Province in Indonesia on 6 March 2007. A total of 67 people died, at least 800 people were injured and 140,000 persons were evacuated. Almost 20,000 houses and hundreds of schools, places of worship, offices and public facilities were destroyed. In April 2007, a tsunami killed at least 34 people and displaced over 6,000 in the Solomon Islands. A United Nations humanitarian appeal resulted in the provision of more than $500,000 in assistance in the areas of health, education, water and sanitation, protection and rule of law.

## C. Epidemics

34. Many disasters associated with specific natural hazards, especially flooding, increase the risk of water-borne and other diseases. The Intergovernmental Panel on

Climate Change fourth assessment report, issued in 2007, has outlined evidence suggesting that climate change is already having an impact on human health, although at the present stage the effect is small. Their projections, however, point to a number of possible trends including increases in malnutrition, disaster-associated fatalities and morbidity as well as changes in the incidence of some infectious diseases, such as malaria.

35. In September 2006, Ethiopia experienced an outbreak of acute watery diarrhoeal syndrome resulting in more than 22,000 cases and 219 deaths. The case fatality rate of 10 per cent in the flood-affected region of Amhara was 10 times the national average. The Ministry of Health implemented control measures, case management and further assessments in cooperation with the United Nations and partners in non-governmental organizations. Cholera and acute watery diarrhoea outbreaks were also reported in the Sudan and Angola in 2006.

36. Meningococcal disease outbreaks were reported in two areas in 2006; the first affecting Burkina Faso, Côte d'Ivoire, Mali and Niger and the second affecting eastern Kenya, the Sudan and Uganda. In those countries a total of 5,719 suspected cases, including 580 deaths, were reported in 2006.

37. During the reporting period, over 1,000 cases of Rift Valley fever resulted in at least 275 deaths in Kenya, Somalia and the United Republic of Tanzania. The response to the outbreak was organized by the respective national authorities, the Kenya Medical Research Institute, the United States Centres for Disease Control and Prevention, and the United Nations system, including the allocation of $3.15 million from the Central Emergency Response Fund for fever outbreaks.

38. Previously polio-free, Chad, Ethiopia and Somalia exported new cases of polio in 2004 and 2005. To date, Ethiopia has reported a total of 37 polio cases and Somalia confirmed 215 cases, while in Chad one case was confirmed in January 2007. Those countries are now increasing their level of planning and coordination and streamlining their polio eradication strategies to cut the corridor of transmission of the polio virus. Ethiopia, Kenya and Somalia vaccinated millions of children under five years of age in September 2006 in the largest-ever synchronized vaccination campaign in the Horn of Africa. Chad also stepped up its immunization programme, vaccinating nearly 2.5 million children under five years of age during the reporting period.

39. During the past two years, the number of people living with HIV increased in every region of the world. HIV is spreading quickly in Central Asia and Eastern Europe, where a 70 per cent increase in new infections has occurred since 2004. Additionally, new HIV infections rose by 15 per cent in South and South East Asia, while new infections rose by 12 per cent in the Middle East and North Africa. Sub-Saharan Africa continues to bear the brunt of the global HIV epidemic, with 25 million people living with HIV. Declines in national HIV prevalence are being observed in some sub-Saharan African countries. However, such trends are neither strong nor widespread enough to diminish the epidemic's overall impact in the region. At the same time, access to care and treatment has greatly increased chances of people who are living with HIV surviving longer than before in low- and middle-income countries.

40. According to the World Health Organization (WHO), during the reporting period there were 84 human cases of H5N1, resulting in 57 deaths, with over

twenty-four countries reporting infections. Concern about the threat has prompted the international community to launch efforts aimed at improving global preparedness to both forestall an influenza pandemic and cope with a pandemic should one occur.

### D. Environmental hazard events

41. Environmental emergencies can arise from both human-made disasters — for example an accident at a facility that contains hazardous material — and from natural hazard events with secondary impacts, such as an earthquake that destroys an industrial facility. Whatever the cause, environmental emergencies can threaten lives and livelihoods if not identified and addressed immediately. A vital component of an effective humanitarian response is, therefore, ensuring that serious environmental risks are promptly identified and that steps are taken to reduce them.

42. During the past year, the United Nations has helped to ensure an effective response to a wide range of environmental emergencies including a toxic waste dumping incident in Côte d'Ivoire, a "mud volcano" in Indonesia that flooded adjacent villages, oil spill effects from the Lebanon crisis and environmental impacts from flooding and cyclones in Madagascar and in Indonesia.

43. Through the United Nations system, potential secondary risks are now routinely identified at the onset of all major disasters. Relevant actors of the United Nations system are also jointly integrating environment-related concerns as a cross-cutting issue in the overall humanitarian response.

## III. Key challenges

44. A combination of factors, including a growing awareness of the Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters, climate change and the growing incidence of disasters, have helped mobilize attention, strengthening the capabilities of disaster-prone communities. That development is both welcome and significant, and it needs to be translated into steadfast commitments and concrete support. Important challenges in this connection include the strengthening of local, national and regional capacities for disaster management, the streamlining of coordination and rapid response systems and the application of information and telecommunications technology. Responding to disasters in a manner that promotes early recovery, in a risk-reduction framework, is also critical. Recent events underline the need for increased, more accountable, resource allocation for disasters associated with natural hazards. There is a particular need to improve the targeting and tracking of funds for preparedness and to ensure greater prioritization of high-risk, less-prepared settings.

45. In June 2007, 124 Member States and 105 regional, intergovernmental, and non-governmental organizations participated in the first meeting of the Global Platform for Disaster Risk Reduction. Key themes highlighted by participants included the importance of prioritizing investment in disaster risk reduction and the need for countries to quickly establish systems to monitor and report on their risk profiles. Greater engagement with the private sector was also encouraged. The

meeting also stressed that a core challenge includes expanding proven practices in risk reduction from the local to global level.

## A. Strengthening local, national and regional capacities for disaster management, particularly in high-risk, low-capacity settings

46. Capacity development is one of the elements most critical to improved disaster risk reduction at the local, national and regional levels. Based on its analysis of national reporting, the International Strategy for Disaster Reduction Secretariat has noted that many high-risk, low-capacity countries face considerable challenges in building and maintaining basic institutional capacity for disaster management. More needs to be done to support those countries in developing their in-country human resources and national legislative and policy frameworks and to fund action plans designed to strengthen preparedness capabilities. Considerable experience exists among Member States, international agencies and communities; however, additional efforts and resources are needed to enable concerned States to access those resources.

47. The United Nations has supported the development of disaster preparedness and response capabilities at national and regional levels. During the reporting period, a series of subregional conferences were also held to develop strategies for the new Africa regional strategy for disaster risk reduction. Regional initiatives to enhance preparedness, mitigation and response capacity were also stepped up in Asia. In August 2006, India hosted the South Asia Policy Dialogue on Regional Disaster Risk Reduction, while the Association of Southeast Asian Nations continued its work to implement the 2005 Agreement on Disaster Management and Emergency Response.

48. Considerable progress has also been made in augmenting locally available disaster response expertise in high-risk areas by incorporating developing country members into the United Nations Disaster Assessment and Coordination System. That measure facilitates the rapid deployment of local resources in the event of a disaster, and at lower cost. Acquired skills are also important in facilitating the development of national preparedness and disaster response. There are more than 90 emergency experts from 41 developing countries who are active team members of the System. They constitute 42 per cent of the system's total membership. During the reporting period, the United Nations organized two induction workshops, including one specifically for French-speaking countries and another for Portuguese-speaking countries. United Nations Disaster Assessment and Coordination preparedness missions were also undertaken in Afghanistan, Bolivia and the Lao People's Democratic Republic, at the request of the respective Governments, to increase awareness of the System and to provide technical support and recommendations regarding measures needed to improve their national disaster response capacity.

49. The International Search and Rescue Advisory Group has more than 60 member countries from both responding and disaster-prone countries. Its activities are focused on capacity-building in high-risk, low-capacity environments. While most donor countries and response organizations comply with the Group's guidelines, introducing its disaster coordination methodology into disaster-prone countries, which would also help to ensure that international assets are seamlessly integrated into the national response effort, remains a challenge. Measures to achieve that goal include the organization of annual regional earthquake response exercises.

50. Effective disaster management requires human resources, persons who are trained and capable. Thus, in early 2007 the inter-agency Capacity for Disaster Reduction Initiative began working to support Governments, organizations, academia and professional organizations to strengthen skills within a risk-reduction framework. The Initiative's core mandate is to serve as a resource centre on best practices with regard to capacity-building on disaster related issues. As such, it will help to disseminate best practices from the local to the international level and will encourage a greater regional and interregional exchange of information with regard to capacity development for disasters. In a two-year initial phase, the Initiative will concentrate its activities in six highly vulnerable, low-capacity countries. Its main clients will be government bodies working in disaster risk reduction and those actors that are supporting them to make disaster risk reduction a national priority.

51. The above-mentioned efforts will complement the existing initiative on strengthening national capacities for a tsunami early warning and response system in the Indian Ocean coordinated by the International Strategy for Disaster Reduction. So far, 11 countries have asked to participate, and projects are being implemented in the Maldives, Sri Lanka and Thailand to strengthen warning and response plans for coastal regions. Plans to include additional projects are currently being discussed with donors. However, gaps in funding for investment in early warning remains a problem, particularly in Africa, and more effort is needed to link regional and national systems to the local level.

## B. Strengthening preparedness, coordination and rapid response

52. Frequently, recognition of the importance of disaster preparedness increases in the wake of a devastating experience, when it becomes tragically clear that losses could have been reduced if advance measures had been taken. While post-disaster reviews often come too late to save the lives and assets of many disaster victims, rethinking coordination and rapid response mechanisms in the wake of a disaster may provide an opportunity to mobilize support for dedicated investment in disaster preparedness. Several national and international initiatives that aim to improve coordination, response and preparedness mechanisms are under way.

53. For example, important steps were taken during the reporting period to strengthen international coordination and international support to national Governments, including the further development of the cluster approach, in which United Nations entities and non-United Nations humanitarian actors coordinate the response though a series of thematic groupings; the development or updating of tools to strengthen preparedness and response systems; the drafting of key guidelines for legislation to support disaster response; and the enhancement of key systems such as the United Nations Disaster Assessment and Coordination Team and the International Search and Rescue Advisory Group to improve their capacity to respond globally, especially in high-risk settings.

54. The cluster approach was used in support of national disaster relief efforts in Ethiopia, Indonesia, Madagascar, Mozambique, the Philippines and Somalia during the reporting period. In addition, clusters have continued to operate in Pakistan

since the 2005 South Asian earthquake. Internal assessments of the cluster approach in recent disasters indicate that coordination with government entities and levels of accountability and predictability have improved as a result of the approach's implementation. The cluster approach has also led to a strengthening of joint needs assessments and to improved prioritization of activities when requesting emergency funding through the Central Emergency Response Fund and flash appeals. The emergency shelter clusters in Indonesia and Mozambique facilitated coordination with national efforts by providing a single interface for the Government. In Mozambique, the cluster approach complemented the strong lead by the Mozambique National Disaster Management Institute and resulted in a more integrated response than in 2001. In the Philippines, the logistics cluster provided enhanced information management services as well as ocean, air and land transport for all humanitarian actors. Future challenges include the implementation of the cluster approach in more countries while working to ensure that lessons learned from recent operations are used to further improve disaster relief.

55. In addition, while response missions were deployed by the United Nations Disaster Assessment and Coordination Team a total of 10 times in the reporting period and were instrumental in helping affected countries generate an accelerated and coordinated response, the effectiveness of the system requires a greater understanding and awareness among disaster-prone countries as well as among United Nations resident/humanitarian coordinators. Improved knowledge of the Team and its response partners, including the 2005 Asia-Pacific Humanitarian Partnership,[2] the International Humanitarian Partnership[3] and the Americas Support Module,[4] could ensure that requests for Team support are made in a timely manner.

56. Other initiatives are under way to assess and improve disaster preparedness, particularly in high-risk, low-capacity countries. For example, United Nations agencies and partner organizations in the Asia and Pacific region are jointly developing tools to model the risk, vulnerability and response capacity of countries. Individual agencies, through the Inter-Agency Standing Committee, are using those models to better focus preparedness activities.

57. In addition, the Committee is developing a guidance and indicator package to facilitate implementation of priority five (preparedness) of the Hyogo Framework for Action. Challenges foreseen in that respect include the mobilization of feedback for further enhancement of this and related tools. The International Federation of Red Cross and Red Crescent Societies is currently leading an Inter-Agency Standing Committee consultation to identify priority gaps in the integration of disaster risk reduction into humanitarian action, with the aim of establishing a comprehensive programme for the reduction of risk in humanitarian contexts. Efforts are also under way to develop diagnostic and other tools to facilitate systematic and strategic

[2] The Asia-Pacific Humanitarian Partnership is a consortium comprising Australia, China, Japan, New Zealand, the Republic of Korea and Singapore, which is capable of providing technical support, trained personnel, communications systems and living/working support for UNDAC missions following disasters.

[3] The International Humanitarian Partnership is comprised of Denmark, Estonia, Finland, the Netherlands, Norway, Sweden and the United Kingdom of Great Britain and Northern Ireland and provides operational support to UNDAC in a number of geographical areas.

[4] In 2006, an Americas Support Module was established, with contributions from the United States of America and Télécoms sans frontières, to provide IT support services to United Nations Disaster Assessment and Coordination teams in the Americas region.

action on issues such as HIV, taking into account the way in which threats intersect with and exacerbate vulnerability in disaster settings.

58. The International Law Commission agreed at its fifty-eighth session (2006) to include work on the protection of persons in the event of a disaster in its long-term workplan, which is particularly important given the growth in the number of disasters.

59. Given increases in the size of international relief efforts, ad hoc solutions to common regulatory issues have increasingly been noted as a problem in key evaluations, such as the Tsunami Evaluation Coalition report. The International Federation of Red Cross and Red Crescent Societies continued its project on International Disaster Response Law and undertook a series of formal consultations with States and humanitarian organizations during the reporting period. Those activities have culminated in the drafting of a set of non-binding guidelines on the domestic facilitation and regulation of international disaster relief and initial recovery assistance. In March, the Inter-Agency Standing Committee Working Group expressed its support for the development of the guidelines, which will be presented to Governments and national societies at the Thirtieth International Conference of the Red Cross and Red Crescent in November 2007.

60. The United Nations and its partners are working to increase the preparedness of the international humanitarian system to respond to transboundary crop pests and highly pathogenic diseases. While activities currently focus on a pandemic threat, they will help to strengthen emergency preparedness and coordination overall and have an impact on the coherence of the United Nations system and the response capacity of national authorities. Global investment in preparedness for a possible influenza pandemic also provides an opportunity to test and measure preparedness in general.

## C. Strengthening information and telecommunications technology in disasters

61. Building systems and processes that allow humanitarian entities the maximum use of information technology (IT) in disaster settings continues to be a challenge, though several international initiatives are currently under way to improve collaboration, standards and use of IT systems in disaster response.

62. The Inter-Agency Standing Committee Sub-Working Group on Emergency Telecommunications, whose membership includes United Nations entities, international, governmental and non-governmental organizations and the private sector, has continued to promote the adoption of emergency telecommunications standards to increase the interoperability of equipment and systems in disaster areas. The Emergency Telecommunications Cluster has established stockpiles of equipment and developed standard operating procedures and partnerships with the private sector and non-governmental organizations to respond to emergencies in a rapid and predictable manner.

63. In addition, the multilateral Global Disaster Alert and Coordination System was strengthened to incorporate the following into one Internet-based global system: country-based systems; the European Commission Joint Research Centre disaster alert tool called Asgard; seismological laboratories; the United Nations Institute for

Training and Research (UNITAR) Operational Satellite Applications Programme; the Humanitarian Early Warning Service; and Relief Web. As a result, responders can receive early warning of disasters by text message (SMS-short message service) or e-mail. The Virtual On-Site Operations Coordination Centre managed by the United Nations now has over 5,000 registered users from more than 60 countries and is used for real-time coordination of information and assets in a sudden-onset disaster. Access to emergency satellite maps is now available through the system.

64. The Joint Research Centre of the European Commission, which is responsible for the automated alert system of the Global Disaster Alert and Coordination System, is also testing a global flood detection system geared to detecting floods globally on a near real-time basis with the purpose of alerting the humanitarian community and facilitating an early response. In areas where flood forecasting systems exist, the global flood detection system provides complementary information. It is scheduled to be launched officially in early 2008.

65. In November 2006, the United Nations Geographic Information Working Group adopted the spatial data infrastructure initiative to strengthen the use of that technology in disaster preparedness and emergency response. In December 2006, the General Assembly established the United Nations Platform for Space-based Information for Disaster Management and Emergency Response to support those efforts. Also during the period, the Operational Satellite Applications Programme increased its efforts to provide humanitarian agencies and organizations with rapid mapping services in support of disasters and complex emergency response operations.

66. Efforts to promote the 2005 Tampere Convention on the Provision of Telecommunication Resources for Disaster Mitigation and Relief Operations[5] at major international and regional telecommunications events and to Member States continue. Thirty-five States have ratified the Convention to date. However, significant work remains to encourage more States to both ratify the Convention and implement its provisions.

## D. Use of military assets in disaster settings

67. Military assets have been deployed to support a number of recent disasters associated with natural hazards. However, concerns have been raised by the international community as well as by Member States that such assets are not always provided based on need; are in use longer than necessary, often at great expense; and detract from, rather than contribute to, the overall coordination of the response. The Guidelines on the Use of Military and Civil Defence Assets in Disaster Relief (Oslo Guidelines), first agreed to by States in 1994 and updated in 2006, were designed to address those issues, but adherence to them is uneven. Several initiatives are under way to address the lack of a consistent approach to the deployment of military assets in disaster settings.

68. During the reporting period the United Nations commissioned the Stockholm International Peace Research Institute to undertake an independent study on the effectiveness of using foreign military assets in international disaster response. The study aims to review the use and coordination of military assets in recent disaster

[5] United Nations, *Treaty Series*, vol. 2296, No. 40906.

responses in Haiti, Indonesia, Mozambique and Pakistan and to assess the level of application of international frameworks and guidelines, including the Oslo Guidelines. The study is also geared to identify and recommend best practices for the deployment, coordination, and use of such assets in future disaster situations.

69. The Central Register of Disaster Management Capacities was originally conceived to collect data on assets and resources from donor countries and regional organizations, which can be deployed for disaster response. However, even though Member States continue to voice their commitment to the Central Register, compiling and maintaining appropriate data remains a problem and has compromised the Register's overall operational effectiveness. Although expansion of the Military and Civil Defence Assets Directory is improving (an additional 10 Member States were identified in 2006), more active engagement is needed on the part of Member States in updating and contributing towards this and other such directories. An internal review of the Central Register, planned for 2008, is expected to assess its value added and user satisfaction.

## E. Early and sustainable post-disaster recovery

70. Experience from both past and more recent disasters has illustrated the importance of designing and organizing a response that promotes a rapid and durable recovery. That means orchestrating immediate post-disaster interventions that help to generate a life-sustaining environment while building the foundations necessary for longer-term recovery. It is important, whenever feasible, to ensure an early focus on regenerating or enhancing the capacity of national institutions and communities. Equally important is the availability of a credible and effective coordination framework and mechanisms, to maximize synergies between different interventions and maintain momentum for an early recovery.

71. Effective coordination in post-disaster settings is a long-standing challenge. It is well understood that coordination of the early recovery process is the responsibility of the concerned Government and that external partners need to provide assistance in a manner that contributes to the realization of agreed recovery objectives. The international community is in the process of developing and enhancing various tools and stand-by capabilities that can assist the concerned authorities in that task. The goal is ensuring continuity and predictability in coordination arrangements during transitions from relief to recovery so that no gaps occur in the assistance to vulnerable populations when the focus moves to the strengthening of the capacities of national authorities to recover from disasters.

72. The Inter-Agency Standing Committee Cluster Working Group on Early Recovery and the Joint Working Group on Transition Issues are collaborating, along with a broad range of United Nations agencies and partners, in the development of a unified approach to post-disaster recovery. It includes the development of a range of strategic planning, assessment, and resource mobilization tools. It also includes the provision of support and technical assistance to the resident/humanitarian coordinator to facilitate the coordination of the transition process. The Office for the Coordination of Humanitarian Affairs, the United Nations Development Programme and the United Nations Development Group Office are currently joining efforts to strengthen recovery coordination capacities of resident coordinator/humanitarian coordinator offices so that they can better support the Inter-Agency Standing

Committee country teams, the international assistance community as a whole and, first and foremost, national authorities during the transition from relief to development.

73. The International Recovery Platform is aimed at bringing together policymakers and senior recovery practitioners of member States and international organizations to exchange experience and identify best practices towards the advancement of a disaster recovery agenda in line with the Hyogo Framework for Action. Under the Platform, a guide to post-disaster needs assessment for recovery settings is currently being developed. It is intended to close the current gap between the assessments of immediate humanitarian needs and longer-term reconstruction requirements. The Inter-Agency Standing Committee Cluster Working Group on Early Recovery is also developing a practical toolkit for field use, including a guidance note, a directory of useful tools, a rapid early recovery needs assessment tool, a local-level programming framework and sector-level guidance. It is also providing training to country teams, early recovery coordinators and cluster lead entities on the use of available recovery tools.

74. A global surge capacity system has been developed for the deployment of early recovery coordinators and inter-agency expert teams to support assessment, programme development and implementation in such specific areas as livelihoods, transitional shelter and local-level recovery. During the reporting period, early recovery coordinators were deployed to support recovery efforts in Madagascar, Mozambique, the Philippines and Somalia.

75. Overall, significant progress has been made in mobilizing attention to and support for sustainable recovery processes. However, more concerted support is needed to mobilize financial and other resources rapidly. Aligning relief and recovery efforts in the aftermath of disasters remains a priority.

## F. Resource allocation for disasters

76. Globally, humanitarian aid has expanded as a proportion of official development assistance (ODA) over the last 15 years. After falling in the early 1990s, ODA began to rise in the late 1990s, and it saw the steepest ever increase in 2005 due mainly to the Gleneagles agreement on debt relief. Humanitarian aid increased from 0.1 per cent of overall ODA in 1970 to 12.1 per cent in 2005.

77. For the calendar year 2006, a total of $245 million was provided to help address disasters associated with natural hazards. An estimated $367 million was provided annually between 2000 and 2004, through international channels, for disasters associated with natural hazards. A review of United Nations financial tracking data suggests that that amount represents less than 5 per cent of total humanitarian funding.

78. The growth in disaster risk will likely increase the financial costs of preparedness and response measures. For example, a recent review of the Disaster Relief Emergency Fund of the International Federation of Red Cross and Red Crescent Societies, which provides complementary funding to the Central Emergency Response Fund for rapid responses to small- and medium-scale disasters, recommended a 150 per cent increase in its funding, from approximately $8 million to $20 million over the next three years.

79. A clear need remains for more consistent and increased levels of funding to address natural hazards in a timely and effective manner. During the reporting period, the United Nations system issued 12 flash and other appeals in the wake of disasters, requesting a total of $364 million. As of 1 June 2007, a total of $168 million, or 46 per cent of the total requested amount, had been funded, though the coverage varied widely, ranging from 100 per cent for the earthquake and tsunami in the Solomon Islands, to 66 per cent for the floods in Kenya, to just 4.5 per cent for the floods in Zambia. The Central Emergency Response Fund contributed an average of 35 per cent of the amount requested. In the calendar year 2006, donors committed $1.4 billion, primarily for Asia, to prevent the spread of avian influenza and to help prepare for a possible pandemic influenza. That commitment represents an important investment in preparedness, surveillance and detection, as well as in response and containment of isolated outbreaks.

80. It is well understood that comprehensive disaster risk-reduction strategies cannot rely solely on donor funds. As outlined in the Hyogo Framework for Action, effective action requires Governments to invest in risk reduction, as well as in social safety nets and financial risk-sharing mechanisms. Furthermore, political support from Governments and strong decision-making mechanisms are crucial to reduce effectively the impact of disasters associated with natural hazards.

81. However, according to a recent ProVention Consortium study, only an estimated 1 per cent of households and 3 per cent of businesses in low- and middle-income countries have insurance coverage against catastrophic risk, as compared with 30 per cent in high-income countries. In addition, Governments in low- and middle-income countries allocate insignificant amounts of domestic resources to risk reduction. Such practices only contribute to cycles of disaster-related poverty and increased dependence on international donor support.

82. Increasing numbers of Governments are integrating risk-reduction and contingency response funds into their national budgets, while others are exploring opportunities to provide low-cost disaster insurance to high-risk populations. Such initiatives are critical to building coherent systems to address changes in disaster risk.

83. While some aspects of resource allocation for disaster-related work, including the reduction of risk, have improved, there is a critical need to strengthen such investment, particularly in disaster-prone areas with weak risk management systems. There is also an urgent need to better understand and track funding flows to increase accountability and to generate improved data on best practices.

84. The World Bank Global Facility for Disaster Reduction and Recovery was launched in September 2006 and specifically seeks to increase the disaster preparedness of States most vulnerable to disasters. To date over $30 million has been contributed to the fund.

## G. Improved accountability in disaster response

85. A key component for strengthening the effectiveness of humanitarian action is the commitment to increase the accountability of international actors to the people they seek to assist. In July 2006, the *Joint Evaluation of the International Response*

*to the Indian Ocean Tsunami: Synthesis Report*[6] was published. The findings highlighted the need for a fundamental reorientation, from supplying aid to supporting and facilitating communities' own relief and recovery priorities. It also highlighted the importance of greater linkages and coherence between international and national disaster response mechanisms and encouraged the relief community to establish an accreditation system to identify agencies that work to a professional standard in a particular sector. While highlighting the importance of making the current funding system impartial, more efficient, flexible and transparent, the *Joint Evaluation* also underscored the need for a better alignment between funding and the principles of good governance.

86. Recommendations from the above-mentioned studies have already been influential in the development of several other key initiatives, such as the design of improved early warning systems and the establishment of the Central Emergency Response Fund.

87. Conducting evaluations of humanitarian operations during disaster response is another key measure for improving accountability and promoting greater transparency and timely learning in the post-disaster phase. During the reporting period, so-called "real-time evaluations" were undertaken in Ethiopia, Kenya, Pakistan and Somalia. Evaluation teams were comprised of both national and internationally qualified experts with experience in Governments, non-governmental organizations and international organizations. The findings of the reports are publicly available, and their recommendations are currently being reviewed with the relevant stakeholders to inform further actions in support of Member States and others.

88. In addition, in March 2007, the Inter-Agency Standing Committee Working Group endorsed a one-year initiative to pilot inter-agency real-time evaluations. The floods and cyclone that hit Mozambique in February, prompting an international response, provided the first opportunity to implement the initiative. The evaluation itself helped strengthen coordination and response efforts and provided real-time learning on key response elements. The lessons learned from the Mozambique experience were presented to the Active Learning Network for Accountability and Performance in Humanitarian Action meeting in June and have fed into guidelines, currently under development, for undertaking inter-agency real-time evaluations.

89. While efforts to strengthen accountability are critical, it is also of vital importance that action be taken, by all concerned stakeholders, on the findings of evaluations and other review processes. For this reason, a high-level task force that includes actors from all areas of the humanitarian community has now been formed to promote and facilitate implementation of these recommendations and to promote increased accountability within the entire humanitarian system.

# IV. Recommendations

It is recommended that the following steps be taken:

- Member States and regional and international organizations are encouraged to identify and improve the dissemination of best practices concerned with

[6] John Telford and John Cosgrave (London, Tsunami Evaluation Coalition, 2006).

improving disaster preparedness and to scale up successful local level initiatives.

- Member States and humanitarian partners are encouraged to increase their activities to implement the 2005 Hyogo Framework for Action and to strengthen systems for identifying and monitoring disaster risk and vulnerability.

- Relevant humanitarian and development actors should prioritize programming to reduce the risk that natural hazard events will exacerbate the transmission of communicable diseases and should also bolster health mechanisms to meet future health-care needs. During natural hazard events, efforts should be strengthened to support populations already highly vulnerable due to HIV, particularly in sub-Saharan Africa.

- Member States are invited to consider strengthening legal preparedness and regulatory frameworks to support response action.

- Member States are invited to ratify the Tampere Convention on the Provision of Telecommunication Resources for Disaster Mitigation and Relief Operations and to undertake measures to enable its incorporation into domestic legislation and full implementation as a resource for relief efforts.

- The United Nations is encouraged to review, in consultation with Member States, the use of military assets for disaster relief with the aim of improving the predictability and use of those assets, based on humanitarian principles.

- Member States are encouraged to contribute information regularly to the relevant directories of the Central Register of Disaster Management Capacities.

- Member States that have not yet done so should consider, within an overall disaster risk-reduction framework, integrating support for disaster preparedness, including contingency funds, into their national budgets and should explore opportunities to provide low-cost disaster insurance to populations at high risk of disasters associated with natural hazards.

- Member States and relevant international organizations are encouraged to increase resources to address disasters associated with natural hazards, particularly in high-risk, low-capacity settings, and to track funds allocated for preparedness activities.

- The United Nations should report on the implementation of the key recommendations of the publication entitled *Joint Evaluation of the International Response to the Indian Ocean Tsunami: Synthesis Report*.